



Date of publication : 12/02/98

Revision date : 21/06/05

Version : 7

**SAFETY DATA SHEET**

International Standard

ISO 11014-1



Xn : Harmful

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name :** IF 14 Low Residue Solderwire  
IF 14-09 Very Low Residue Solderwire  
IF 14-06 Very Low Residue Solderwire

**Main supplier :** Interflux® Solder NV  
Eddastraat 51  
BE - 9042 Gent  
**Tel. Nr. :** ++32-9-251.49.59  
**Fax nr. :** ++32-9-251.49.70

Collect call for emergency : ++1-703-527-3887 (Chemtrec)

**2. COMPOSITION AND INFORMATION ON INGREDIENTS**

The solderwire IF 14 is a preparation.

**Chemical nature**

**Components contributing to the hazard :**

<u>Materials</u>	<u>CAS N°</u>	<u>% Range</u>	<u>Alloy</u>
* Tin	7440-31-5	59.5% - 60.5%	Sn60Pb40
Lead	7439-92-1	remainder	
Flux incorporated	-	1.4% (± 0.2%)	
* Tin	7440-31-5	62.5% - 63.5%	Sn63Pb37
Lead	7439-92-1	remainder	
Flux incorporated	-	0.6% - 0.9% (± 0.3%)	
* Tin	7440-31-5	61.5% - 62.5%	Sn62Pb36Ag2
Lead	7439-92-1	remainder	
Silver	7440-22-4	1.8% - 2.2%	
Flux incorporated	-	0.6% - 0.9% (±0.3%)	
* Tin	7440-31-5	4.8% - 5.2%	Sn5Pb93Ag2
Lead	7439-92-1	remainder	
Silver	7440-22-4	1.2% - 1.8%	
Flux incorporated	-	0.6% - 0.9% (±0.3%)	
		1.4% (±0.2%)	



All other information is strict confidential and will only be given on request of a doctor or a medical department who is obligated to a total confidentiality.

---

### 3. HAZARDS IDENTIFICATION

**Hazard designation :** Xn harmful.

**Specific hazards for humans and environment :** None.

**Physical and chemical hazard :**

- Instability : The product is stable.
  - Incompatibility : None.
  - Decomposition : Tin, lead and silver compounds.
  - Polymerisation : Will not occur.
- 

### 4. FIRST-AID MEASURES

- Inhalation** : None, if the area is well ventilated. Without ventilation it can cause very little irritation to the throat and the eyes.
  - Skin contact** : Burns ; cool affected parts under running water. Do not remove adhering material, apply a sterile dressing and seek medical advice.
  - Eye contact** : Irrigate immediately with copious amounts of water for several minutes.
  - Ingestion** : Obtain medical attention.
- 

### 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : CO<sub>2</sub>, sand or dry earth, dry chemical powder. Do not use jet of water.
  - Protection of fire-fighters** : A SCBA mask is recommended when entering the fire area.
  - Fire & explosion hazards** : None.
  - Special protective equipment for a fire** : Wear a respiratory mask.
  - Flash point of flux** : 170°C
- 

### 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : None.
  - Environmental precautions:** Do not allow spill to spread to sewer or ground.
  - Methods for cleaning up** : Prevent entry into drains, sewers and water sources. Residues should be stored in closed containers. Disposal should be done in accordance with Local, State or National Legislation.
-



## 7. HANDLING AND STORAGE

### Handling

**Technical measures** : Avoid breathing fumes. Use only in well ventilated areas.  
Wash hands thoroughly after handling this product. No eating, drinking or smoking is allowed in the working area.  
Wear gloves.

**Precautions for safe handling** : General ventilation should be provided.

### Storage

**Technical measures** : No special precautions. IF 14 has a shelf life of minimum 2 years.

**Storage class** : 10-13. **VbF-class** : None.

**Storage conditions** : Please refer to the above section "Technical Measures".

**Incompatibility of the product** : Not applicable.

**Safe packaging materials** : Not applicable.

---

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering measures** : Refer to section 7.

**Control parameters** : Treshold limit values (MAC)

Substance	8 hr TWA
Fumes from flux in the wire	0.1 mg/m <sup>3</sup>
Silver fumes	0.01 mg/m <sup>3</sup>
Tin compounds, inorganic (as Sn)	2 mg/m <sup>3</sup>
Lead, inorganic dust and fumes (as Pb)	0.15 mg/m <sup>3</sup>

### Personal protective equipment

**Special instructions for protection and hygiene** : Industrial hygiene is always recommended. Wash the hands with water and soap after working.

**Respiratory protection** : None required if adequate ventilation is present.

**Hand protection** : Protective gloves.

**Eye protection** : Use safety glasses/goggles.

**Skin and body protection** : Additional protection equipment is normally not required.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state** : Solid  
**Colour** : Silver metal  
**Odour** : No smell

**pH, 5% aq. solution** : 3  
**Flash Point of flux** : 170°C  
**Melting point Sn63Pb37** : 183°C  
**Sn60Pb40** : 183-190°C



	<b>Sn62Pb36Ag2</b>	:	178-190°C
	<b>Sn5Pb93Ag2</b>	:	296-301°C
<b>Density of flux</b>		:	± 1.2 g/ml
<b>Solubility in water</b>		:	Insoluble

---

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	:	Stable
<b>Hazardous reactions</b>	:	Not applicable.
<b>Conditions to avoid</b>	:	High temperatures.
<b>Materials to avoid</b>	:	None known.
<b>Hazardous decomposition products</b>	:	Tin, lead and silver compounds.

---

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity :** Interflux® solderwire IF 14 contains a non-corrosive and non-toxic flux. It can cause slight irritation on the skin.

**Other information on health effects :** Normal handling of this product causes no skin irritation but the use of gloves and a good industrial hygiene is always recommended.

**Proprietary ingredient(s)**

Risk effects on humans

Inhalation	:	Hazardous decomposition products are generated at high temperatures.
Skin contact	:	Heated material may cause burns.
Eye contact	:	Vapour can cause little irritation.

Risk effect on animals

Rabbits	:	Must be considered as an irritant.
Skin contact	:	The skin becomes sensible after overexposure.

---

## 12. ECOLOGICAL INFORMATION

**Environmental information :** Tin, lead and silver compounds are not biodegradable and may therefore not be disposed in the environment.

**General information :**

- WGK : Tin (class 0), lead (class 2) and silver (class 3). Do not dispose into the groundwater, the drainage or the sewerage. Already pollution of the drinking-water when very small quantities of the product are disposed into the subsoil.
- Prevent the emission of this product to the environment by blocking the drains, access to water and access to fields.

---

## 13. DISPOSAL CONSIDERATIONS

**Product :** Recommendation : The product may be hazardous waste due to the potential lead content.



Assure disposal of all waste generated by the spill complies with the Local, State and Federal regulations.  
**Packaging** : Recommendation : Disposal must be done according to official regulations.

---

## 14. TRANSPORT INFORMATION

### International regulations

**Road & Rail Transport (ADR/RID) - Sea Transport (IMDG) - Air Transport (ICAO/IATA) :**  
Non-dangerous goods.

**Label** : None      **Number of statistics** : 8311 3000

---

## 15. REGULATORY INFORMATION

### Information on the warning label

Xn : harmful

- R - phrases** : R21/22 : Harmful in contact with skin and if swallowed.  
**S - phrases** : S20/21 : When using do not eat, drink or smoke.  
S37 : Wear suitable gloves.

### Other Legal Regulations

**German water pollution risk (WGK)** : NWG (Tin) 2 (Lead) 3 (Silver)

**Substances that affect the ozone layer** : Substances that affect the ozone layer are not present in this preparation and are not used for its production.

**EINECS** : All ingredients have been registered.

---

## 16. OTHER INFORMATION

Product information in other European languages can be obtained at *Interflux® Solder NV, 9042 Gent*. Because we cannot anticipate or control the many different conditions under which this information and our products may be used, we do not guarantee the applicability or the accuracy of this information or the suitability of our products in any given situation. Users of our products should make their own tests to determine the suitability of each such product for their particular purposes. The products discussed are sold without such warranty, either expressed or implied.

Copyrights reserved to Interflux® Solder NV